

ABSTRACT OF THE DISCLOSURE

By-products inside a furnace body of a CVD film forming apparatus after gas cleaning is performed in the furnace body are provided from being generated. The gas cleaning is performed in the furnace body by a plasma of a gas containing a halogen system gas and an Ar gas in an atmosphere in which the temperature of a heater disposed in the furnace body is approximately 500°C or lower. Thereafter, a rise of the temperature of the heater is started. While the temperature of the heater is maintained constant, a film forming gas is introduced into the furnace body during a time period before the raised temperature reaches a temperature at which radicals or ions of a halogen system element are activated. Thereby, thin films are formed on the inner wall of the furnace body and the surfaces of members including the heater in the furnace body